6.3 Design

The original cover design of the deck areas (areas of less than 4:1 grade), included the following layers (from bottom to top):

- Foundation Layer: a 2-ft thick layer of random soils;
- Barrier Layer: a 1.5-ft thick layer of low-permeability layer ($k = 1 \times 10^{-6}$ cm/sec or less) fine-grained soils;
- Separator Layer: a geotextile filter fabric; and
- Vegetative Layer: a 2.5-ft thick layer of random soils.

The original cover design for the slope areas (gradients steeper than 4:1) consisted of a barrier layer no less than 5-ft thick and placed immediately above the foundation layer.

During closure construction, the San Joaquin Hills Transportation Corridor Agency (TCA) asked the COIWMD to modify the closure and construction plans to accommodate development of a habitat area for the California gnatcatcher on the landfill. To provide for CSS development, the vegetative layer thickness was increased to accommodate the desired plant types (coastal sage scrub). The original cover design was modified to provide a minimum 6-ft thick vegetative layer in the habitat areas. The deck area was modified by the placement of an additional 3.5-ft of random soil over the originally designed vegetative layer. The slope areas were modified by trimming back the 5-ft thick barrier layer to 3 ft. A minimum of 6 ft of random soils was placed over the barrier layer to create the vegetative layer.

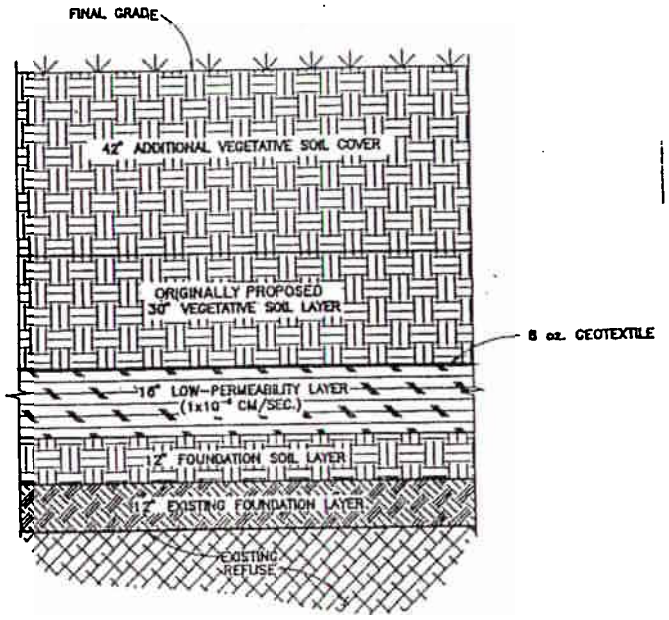
A geotextile separation layer was constructed between the vegetative and barrier layers. The separator layer is intended to limit the potential for desiccation of the barrier layer and to prevent piping of vegetative soils into

the barrier layer should desiccation occur. The geotextile is not used on sideslopes as it may affect slope stability.

6.4 Moisture Monitoring Probes

Moisture probes were installed on the slopes in the habitat mitigation area to monitor the moisture content of the barrier and vegetative layers. A stack of moisture probes was installed at variable depths within both the barrier and vegetative layers.

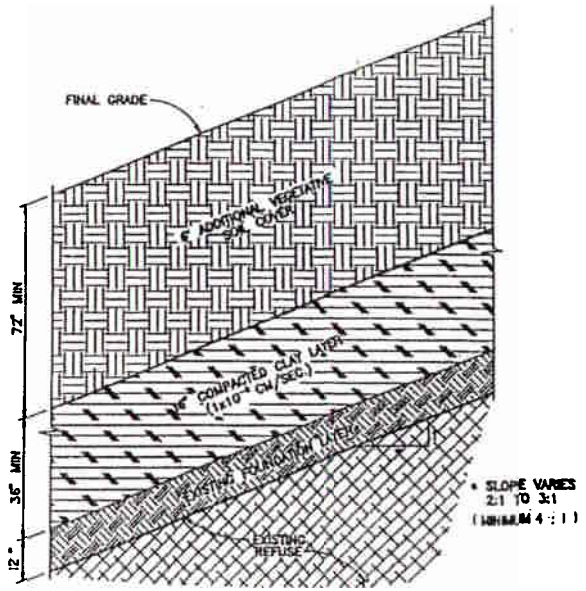
Coyote Canyon Final Cover
Type 1



- Used on top deck in habitat area
  - 6′ vegetative layer
  - 8 oz. Geotextile
  - 1.5′ low permeability layer
  - 2′ foundation soil layer

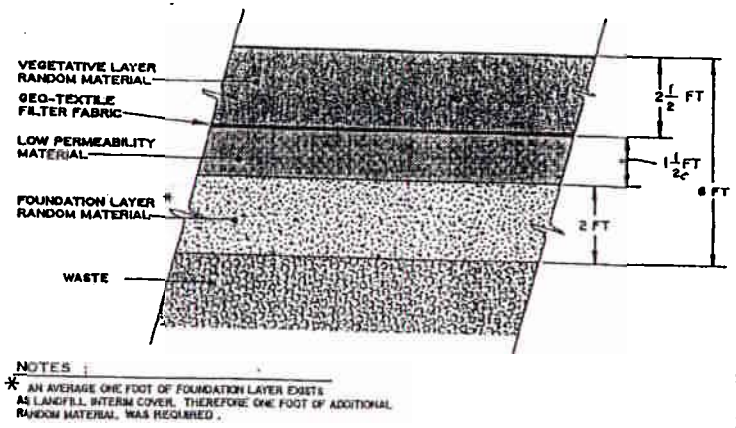
    (1′ existing cover)

Coyote Canyon Final Cover
Type 2



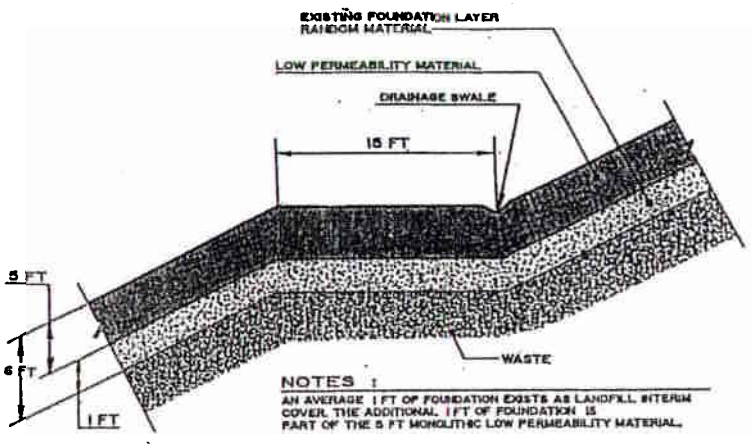
- Used on slopes in habitat area
  - 6′ vegetative layer
  - 3′ low-perm layer
  - 1′ foundation soil layer
    (existing cover)

Coyote Canyon Final Cover
Type 3



- Used on top deck in non-habitat area
  - 2.5′ vegetative layer
  - 8 oz. Geotextile
  - 1.5′ low-perm layer
  - 2′ foundation soil layer
    (1′ of existing cover)

Coyote Canyon Final Cover
Type 4



- Used on slopes in non-habitat area
  - 5′ low-perm layer
  - 1′ foundation soil layer
    (existing cover)